

CLAIMS

1. A compressor comprising:

a chamber consisting of a cylindrical body, an upper cap coupled at an  
5 upper portion of the body and a lower cap coupled at a lower portion of the  
body;

an electric mechanism unit positioned inside the chamber and  
generating rotational force; and

a compression mechanism unit for compressing and discharging fluid by  
10 the rotational force generated from the electric mechanism unit in the chamber,  
wherein the body of the chamber includes an inner body and an outer  
body which are tightly attached to reduce noise and vibration generated in the  
chamber through mutual friction between the inner body and the outer body.

15 2. The compressor of claim 1, wherein a middle body is interposed  
between the inner body and the outer body.

3. The compressor of claim 2, wherein the bodies are assembled in  
a manner of being press-fit to other body.

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4. The compressor of claim 1, wherein the inner body and the outer  
body are assembled by being mutually press-fit.

5. The compressor of claim 1, wherein the inner body and the outer body are assembled by being shrunk to each other.

6. The compressor of claim 1, wherein the inner body and the outer  
5 body are mutually welded at at least one portion thereof.

7. A compressor comprising:

a chamber consisting of a cylindrical body, an upper cap coupled at an upper portion of the body and a lower cap coupled at a lower portion of the  
10 body;

an electric mechanism unit positioned inside the chamber and generating rotational force; and

a compression mechanism unit for compressing and discharging fluid by the rotational force generated from the electric mechanism unit in the chamber,

15 wherein the body of the chamber includes an inner body and an outer body which are tightly attached to reduce noise and vibration generated in the chamber through their mutual friction, and the inner body is fixed to the upper cap and to the lower cap through welding.

20 8. The compressor of claim 7, wherein the inner body and the outer body are attached at one portion thereof through welding.

9. The compressor of claim 7, wherein the inner body and the outer

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body are assembled by being press-fit.

10. The compressor of claim 7, wherein the inner body and the outer body are assembled by being shrunken to each other.

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11. A chamber for a compressor, comprising a multi-layer structure at at least one portion, wherein plates of the multi-layer structure are tightly attached to each other in order to reduce noise and vibration by mutual friction.

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12. The chamber of claim 11, comprising a cylindrical body, an upper cap coupled to an upper portion of the body and a lower cap coupled to a lower portion of the body, wherein the body has a multi-layer structure.

13. The chamber of claim 12, wherein the body has a double-layer structure.

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14. The chamber of claim 11, comprising a cylindrical body, an upper cap coupled to an upper portion of the body and a lower cap coupled to a lower portion of the body, wherein one of the upper cap and the lower cap has a multi-layer structure.

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15. The chamber of claim 11, having a double-layer structure or a triple-layer structure at at least one portion thereof.

16. The chamber of claim 11, wherein the portions in the multi-layer structure are assembled by being press-fit.

5 17. The chamber of claim 11, wherein the portions in the multi-layer structure are assembled by being shrunken to each other.

18. The chamber of claim 11, wherein the portions in the multi-layer structure are assembled by being attached to each other.

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19. The chamber of claim 11, wherein one layer and its adjacent layer are made of different materials.

20. The chamber of claim 19, wherein one layer and its adjacent  
15 layer are made of materials with different thermal expansion coefficient.

21. The chamber of claim 20, wherein the layer positioned at outer side of a compressor is made of material having higher thermal expansion coefficient than that of the layer positioned at an inner side of the compressor.

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22. The chamber of claim 11, wherein one layer and another layer attached thereto have different moduli of strain.

23. The chamber of claim 22, wherein the layer positioned at an outer side of the compressor is made of material having higher modulus of strain than that of the layer positioned at an inner side of the compressor.

5 24. The chamber of claim 11, wherein each layer constituting the multi-layer structure has different thickness.

25. The chamber of claim 24, wherein the layer positioned at the inner side of the chamber is thicker than the layer positioned at the outer side  
10 of the chamber.

26. The chamber of claim 11, wherein the mutually contacting surfaces of the portions in the multi-layer structure formed to be rugged.

15 27. The chamber of claim 11, wherein a heat releasing unit is provided at the outer layer in the multi-layer structure of the chamber.

28. The chamber of claim 27, wherein the heat releasing unit includes a plurality of fin plates.

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29. The chamber of claim 27, wherein the heat releasing unit is a metal plate being in contact with the outer layer constituting the chamber.

30. A chamber for a compressor comprising:

a cylindrical inner body and a cylindrical outer body which are tightly attached to reduce noise and vibration generated inside through mutual friction;

an upper cap coupled to an upper portion of the inner body; and

5 a lower cap coupled to a lower portion of the inner body.

31. The chamber of claim 30, further comprising a support coupled to the outer body and supporting the chamber.

10 32. The chamber 31, wherein the support is fixed at the outer body through welding.

33. The chamber of claim 30, wherein the upper cap and the lower cap are fixed at the inner body through welding.

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34. The chamber of claim 30, wherein the outer body is formed shorter than the overall length of the inner body.